# Date created, 06/30/2017 - Subject to change. © Belimo Aircontrols (USA), Inc.

# B215B, 2-Way, Characterized Control Valve Chrome Plated Brass Ball and Nickel Plated Brass Stem







WARRANTY

Technical Data	
Service	chilled, hot water, up to 60% glycol
Flow Characteristic	equal percentage
Controllable Flow Range	75°
Size [mm]	0.5" [15]
End Fitting	NPT female ends
Body	forged brass, nickel plated
Ball	chrome plated brass
Stem	nickel plated brass
Stem Packing	EPDM (lubricated)
Seat	Teflon® PTFE
Seat O-ring	EPDM (lubricated)
Characterized Disc	TEFZEL®
Body Pressure Rating [psi]	600
Media Temperature Range	0°F to 250°F [-18°C to 120°C]
(Water)	
Max Differential Pressure (Water)	50 psi (345 kPa)
Close-Off Pressure	200 psi
Cv	10
Weight	0.7 lb [0.3 kg]
Leakage	0% for A to AB
Servicing	maintenance free



# **Application**

This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include Unit Ventilators, VAV box re-heat coils and bypass loops. This valve is suitable for use in a hydronic system with variable flow.

**Suitable Actuators** 

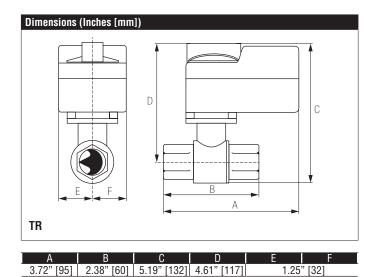
	Non-Spring	Spring
B215B	TR, LR	TFR, LF

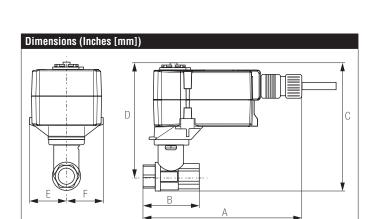


А	В	С	D	Е	F	H1	H2
9.4"	2.38"	5.58"	5" [127]	1.3"	[33]	1.18"	1.1" [28]
[239]	[60]	[142]				[30]	

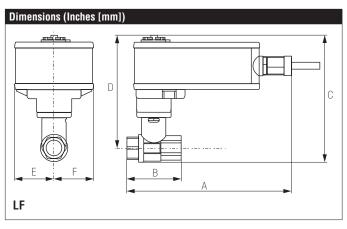


TFRB, TFRX





	Α	В	С	D	E	F
ĺ	6.59" [167]	2.38" [60]	5.48" [139]	4.71" [120]	1.53	" [38]



# TR24-SR/300 US Modulating, Non-Spring Return, 24 V, for 2 to 10 VDC or 4 to 20 mA





Technical Data				
Power Supply	24 VAC ± 20%, 50/60 Hz, 24 VDC ± 10%			
Power Consumption Running	0.5 W			
Transformer Sizing	1 VA (class 2 power source)			
Electrical Connection	10ft [3m], 18 GA plenum rated cable			
Overload Protection	electronic throughout full rotation			
Operating Range Y	2 to 10 VDC, 4 to 20 mA w/ ZG-R01 (500 $\Omega$ , 1/4 W resistor)			
Input Impedance	100 k $\Omega$ for 2 to 10 VDC (0.1 mA), 500 $\Omega$ for 4			
	to 20 mA			
Angle of Rotation	90°			
Direction of Rotation (Motor)	reversible with protected switch			
Position Indication	integrated into handle			
Manual Override	push down handle			
Running Time (Motor)	90 sec			
Ambient Temperature Range	-22°F to 122°F [-30°C to 50°C]			
Storage Temperature Range	-40°F to 176°F [-40°C to 80°C]			
Housing	NEMA type 1 / IP40			
Agency Listings†	cULus acc. to UL60730-1A/-2-14, CAN/CSA			
	E60730-1:02, CE acc. to 2004/108/EC and			
	2006/95/EC			
Noise Level (Motor)	<35 dB (A)			
Servicing	maintenance free			
Quality Standard	ISO 9001			







### Wiring Diagrams



# X INSTALLATION NOTES



Provide overload protection and disconnect as required.

Only connect common to negative (-) leg of control circuits.



Actuators may also be powered by 24 VDC.



A 500  $\Omega$  resistor (ZG-R01) converts the 4 to 20 mA control signal to 2 to 10 VDC.



Actuators may be connected in parallel if not mechanically linked. Power consumption and input impedance must be observed.



Meets cULus requirements without the need of an electrical ground connection.



# WARNING! LIVE ELECTRICAL COMPONENTS!

During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

